



PTO/SB/08A (08-03)

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet	1	of	8
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**Complete if Known**

APPLICATION NUMBER	10/666,527
FILING DATE	09/18/2003
FIRST NAMED INVENTOR	Bailey et al.
Group Art Unit	1756
Examiner Name	Unassigned
Attorney Docket Number	PA51-22-02

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code* (if known)			

EL	B1	5,414,514		Smith et al.	5/9/1995	
EL	B2	5,808,742		Everett et al.	9/15/1998	
EL	B3	6,088,103		Everett et al.	7/11/2000	
EL	B4	6,309,580	B1	Chou	10/30/2001	
EL	B5	6,391,217	B2	Schaffer et al.	5/21/2002	
EL	B6	6,517,977	B2	Resnick et al.	2/11/2003	
EL	B7	6,522,411	B1	Moon et al.	2/18/2003	
EL	B8	6,696,220	B2	Bailey et al.	2/24/2004	
EL	B9	10/687,519		Nguyen et al.	10/16/2003	
EL	B10	2002/0177319	A1	Chou	11/28/2002	
EL	B11	6,713,238	B1	Chou et al.	3/30/2004	
EL	B12	2004/0163563	A1	Sreenivasan et al.	8/26/2004	
EL	B13	3,783,520		King	1/8/1974	
EL	B14	6,150,231		Muller et al.	11/21/2000	
EL	B15	6,489,068	B1	Kye	12/3/2002	
EL	B16	2003/0113638	A1	Mancini et al.	6/19/2003	
EL	B17	6,646,662	B1	Nebashi et al.	11/11/2003	
EL	B18	6,776,094	B1	Whitesides et al.	8/17/2004	

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SignatureDate  
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EL	B19	4,600,309		Fay	7/15/1986	
EL	B20	4,848,911		Uchida et al.	7/18/1989	
EL	B21	5,074,667		Miyatake	12/24/1991	
EL	B22	5,148,036		Matsugu et al.	9/15/1992	
EL	B23	5,148,037		Suda et al.	9/15/1992	
EL	B24	6,518,189	B1	Chou	2/11/2003	
EL	B25	2002/0132482	A1	Chou	9/19/2002	
EL	B26	2002/0167117	A1	Chou	11/14/2002	
EL	B27	6,482,742	B1	Chou	11/19/2002	
EL	B28	2003/0080471	A1	Chou	5/1/2003	
EL	B29	2004/0036201	A1	Chou et al.	2/26/2004	
EL	B30	2004/0192041	A1	Jeong et al.	9/30/2004	
EL	B31	6,828,244	B2	Chou	12/7/2004	
EL	B32	6,809,356	B2	Chou	10/26/2004	
EL	B33	5,737,064		Inoue et al.	4/7/1998	
EL	B34	2004/0197843	A1	Chou et al.	10/7/2004	
EL	B35	2004/0156108	A1	Chou et al.	8/12/2004	
EL	B36	2004/0137734	A1	Chou et al.	7/15/2004	

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EL	B37	2004/0131718	A1	Chou et al.	7/8/2004	
EL	B38	2004/0118809	A1	Chou et al.	6/24/2004	
EL	B39	2004/0046288	A1	Chou	3/11/2004	
EL	B40	2003/0080472	A1	Chou	5/1/2003	
EL	B41	2003/0034329	A1	Chou	2/20/2003	
EL	B42	2002/0042027	A1	Chou et al.	4/11/2002	
EL	B43	6,636,311	B1	Ina et al.	10/21/2003	
EL	B44	6,383,888	B1	Stirton	5/7/2002	
EL	B45	2004/0033515	A1	Cao et al.	2/19/2004	
EL	B46	2004/0168586	A1	Bailey et al.	9/2/2004	
EL	B47	2004/0189996	A1	Sreenivasan et al.	9/30/2004	
EL	B48	2004/0209177	A1	Sreenivasan et al.	10/21/2004	
EL	B49	10/864,214		Sreenivasan et al.	6/9/2004	
EL	B50	5,999,245		Suzuki	12/7/1999	
EL	B51	6,630,410	B2	Trapp et al.	10/7/2003	
EL	B52	6,580,172	B2	Mancini et al.	6/17/2003	
EL	B53	4,722,878		Watakabe et al.	2/2/1988	
EL	B54	2002/0175298	A1	Moniwa et al.	11/28/2002	

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EL	B55	10/670,980		Sreenivasan et al.	9/25/2003	
EL	B56	10/706,537		Sreenivasan et al.	11/12/2003	
EL	B57	10/833,240		Watts et al.	4/27/2004	
EL	B58	10/895,214		Voison	7/20/2004	
EL	B59	10/917,761		McMackin et al.	8/13/2004	
EL	B60	11/051,941		McMackin et al.	2/4/2005	
EL	B61	4,512,848		Deckman et al.	4/23/1985	
EL	B62	6,388,755	B1	Zhao	5/14/2002	
EL	B63	6,295,120	B1	Miyatake	9/25/2001	
EL	B64	6,049,373		Miyatake	4/11/2000	
EL	B65	6,285,439	B1	Miyatake	9/4/2001	
EL	B66	6,791,669	B2	Poon	9/14/2004	
EL	B67	6,517,995	B1	Jacobenson et al.	2/11/2003	
EL	B68	2004/0110856	A1	Young et al.	6/10/2004	
EL	B69	6,716,754	B2	Hofmann et al.	4/6/2004	
EL	B70	2002/0135099	A1	Robinson et al.	9/26/2002	
EL	B71	5,028,366		Harakal et al.	7/2/1991	
EL	B72	5,601,641		Stephens	2/11/1997	

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EL	B76	WO	2004/016406		Sreenivasan	2/26/2004		
EL	B77	WO	00/21689		Chou et al.	4/20/2000		
EL	B78	JP	02-92603		Kurikawa et al.	4/3/1990		
EL	B79	JP	02-24848		Kamio	1/26/1990		
EL	B80	WO	01/47003		Steiner et al.	6/28/2001		
EL	B81	WO	02/07199		Chou	1/24/2002		
EL	B82	WO	2004/114016		Chou et al.	12/29/2004		
EL	B83	WO	99/05724		Chou et al.	2/4/1999		
EL	B84	WO	03/010289		Chou et al.	2/6/2003		
EL	B85	WO	03/079416		Chou	9/25/2003		
EL	B88	WO	03/099536		Chou et al.	12/4/2003		
EL	B87	WO	2004/013693		Watts et al.	2/12/2004		

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**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
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EL	B88	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
EL	B89	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
EL	B90	Chou et al., Imprint Lithography with Sub-10 nm Feature Size and High Throughput, Microelectronic Engineering 35, pp. 237 - 240, 1/1/1997	
EL	B91	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003	
EL	B92	Chou et al., Lithographically Induced Self-assembly of Periodic Polymer Micropillar Arrays, J. Vac. Sci. Technol. B 17 (6), pp. 3197 - 3202, 11/1/1999	
EL	B93	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
EL	B94	Translation of Japanese Patent 02-92603	
EL	B95	Translation of Japanese Patent 02-24848	
EL	B96	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Vol. 417, (June 2002), pp. 835-837, 6/1/2002	

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				<b>APPLICATION NUMBER</b>	10/666,527
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>FILING DATE</b>	09/18/2003
				<b>FIRST NAMED INVENTOR</b>	Bailey et al.
(use as many sheets as necessary)				<b>Group Art Unit</b>	1756
				<b>Examiner Name</b>	Unassigned
<b>Sheet</b>	8	of	8	<b>Attorney Docket Number</b>	PA51-22-02

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

EL	B97	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996	
EL	B98	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
EL	B99	Resnick et al., High Resolution Templates for Step and Flash Imprint Lithography, Journal of Microlithography, Microfabrication, and Microsystems. Vol 1. No. 3., 10/1/2002	
EL	B100	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
EL	B101	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
EL	B102	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
EL	B103	Wronosky et al., Wafer and Reticle Positioning System for the Extreme Ultraviolet Lithography Engineering Test Stand, Emerging Lithography Technologies, Proceedings of SPIE Vol. 3997, pp. 829-839, 7/1/2000	
EL	B104	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

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<b>Sheet</b>	1	of	4		

U.S. PATENT DOCUMENTS						
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		Number	Kind Code <sup>2</sup> (if known)			

EL	C1	5,206,983		Guckel et al.	5/4/1993	
EL	C2	6,117,708		Wensel	9/12/2000	
EL	C3	6,316,290	B1	Wensel	11/13/2001	
EL	C4	6,387,787	B1	Mancini et al.	5/14/2002	
EL	C5	2004/0021866	A1	Watts et al.	2/5/2004	
EL	C6	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
EL	C7	2003/0205657	A1	Voisin	11/6/2003	
EL	C8	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
EL	C9	6,665,119	B1	Kurtz et al.	12/16/2003	
EL	C10	6,190,929	B1	Wang et al.	2/20/2001	
EL	C11	4,512,848		Deckman et al.	4/23/1985	
EL	C12	2005/0067379	A1	Sreenivasan et al.	3/31/2005	
EL	C13	2004/0250945	A1	Zheng et al.	12/16/2004	
EL	C14	5,477,058		Sato	12/19/1995	
EL	C15	2005/0084804	A1	Truskett et al.	4/21/2005	
EL	C16	2005/0037143	A1	Chou et al.	2/17/2005	
EL	C17	2005/0098534	A1	Sreenivasan et al.	5/12/2005	

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*(use as many sheets as necessary)*

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Group Art Unit	1756
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				<b>FILING DATE</b>	09/18/2003
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<b>Sheet</b>	3	of	4	<b>Attorney Docket Number</b>	PA51-22-02

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EL	C25	MOON ET AL., Interferometric-Spatial-Phase Imaging for Six-Axis Mask Control, MIT NanoStructures Laboratory, Research Laboratory of Electronics 10/17/2003	
EL	C26	SHIBUICHI ET AL., Super Water- and Oil-Repellent Surfaces Resulting from Fractal Structure, Journal of Colloid and Interface Science, Vol. 208, no. 1, pp. 287-294 12/1/1998	
EL	C27	PARK ET AL., Aligning Liquid Crystals Using Replicated Nanopatterns, PSI Scientific Report 2002, Vol VII, p. 85 3/1/2003	
EL	C28	TANIGUCHI ET AL., Diamond Nanoimprint Lithography, Nanotechnology, 2002, vol. 13, no. 5, pp. 592-596(5) 1/1/2002	
EL	C29	KIYOHARA ET AL., Abstract of Plasma Etching of CVD Diamond Films using an ECR-type Oxygen Source, <a href="http://www.iop.org/EJ/abstract/0957-4484/10/4/304">http://www.iop.org/EJ/abstract/0957-4484/10/4/304</a> 9/26/2003	
EL	C30	APPLICATION NO. 11/126,946, naming Inventors Choi et al., entitled Formation of Discontinuous Films During an Imprint Lithography Process, filed 5/11/2005	
EL	C31	APPLICATION NO. 11/127,041, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Processes, filed 5/11/2005	
EL	C32	APPLICATION NO. 11/127,060, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	
EL	C33	APPLICATION NO. 11/136,897, naming Inventors Miller et al., entitled Imprint Lithography Template Having a Coating to Reflect and/or Absorb Actinic Energy, filed 5/25/2005	

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Sheet	4	of	4		

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	C34	THOMPSON ET AL., Fabrication of Step and Flash Imprint Lithography Templates Using Commercial Mask Processes, SPIE Microlithography Conference 2/1/2003	

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		FILING DATE      09/18/2003			
		FIRST NAMED INVENTOR      Bailey et al.			
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		Examiner Name      Unassigned			
		Attorney Docket Number      PA51-22-02			

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DL	D1	4,959,252		Bonnebat et al.	9/25/1990	
EL	D2	5,218,193		Miyatake	6/8/1993	
EL	D3	5,259,926		Kuwabara et al.	9/9/1993	
EL	D4	5,348,616		Hartman et al.	9/20/1994	
EL	D5	5,355,219		Araki et al.	10/11/1994	
EL	D6	5,512,131		Kumar et al.	4/30/1996	
EL	D7	5,545,367		Bae et al.	8/13/1996	
EL	D8	5,952,127		Yamanaka	9/14/1999	
EL	D9	6,051,345		Huang	4/18/2000	
EL	D10	6,137,562		Masuyuki et al.	10/24/2000	
EL	D11	6,420,892	B1	Krivy et al.	7/16/2002	
EL	D12	2004/0112861	A1	Choi et al.	6/17/2004	
EL	D13	2003/0092261	A1	Kondo et al.	5/15/2003	
EL	D14	2003/0179354	A1	Araki et al.	9/25/2003	
EL	D15	2002/0150398	A1	Choi et al.	10/17/2002	
EL	D16	2004/0146792	A1	Nimmakayala et al.	7/29/2004	
EL	D17	4,201,800		Alcorn et al.	5/6/1980	

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EL	D18	6,770,852	B1	Stegner	8/3/2004	
EL	D19	2003/0081193		White et al.	5/1/2003	
EL	D20	2004/0150129		Hougham et al.	8/5/2004	
EL	D21	2004/0202865		Homola et al.	10/14/2004	
EL	D22	5,937,758		Maracas et al.	8/17/1999	
EL	D23	5,726,548		Chiba et al.	3/10/1998	
EL	D24	2002/0069525	A1	Hada et al.	6/13/2002	
EL	D25	5,508,527		Kuroda et al.	4/16/1996	
EL	D26	5,876,550		Feygin et al.	3/2/1999	
EL	D27	5,785,918		Hull	7/28/1998	
EL	D28	5,171,490		Fudim	12/15/1992	
EL	D29	4,964,145		Maldonado	10/16/1990	
EL	D30	4,887,283		Hosno	12/12/1989	
EL	D31	5,155,749		DiMilia et al.	10/13/1992	
EL	D32	5,504,793		Chen	4/2/1996	
EL	D33	6,580,505		Bareket	6/17/2003	
EL	D34	6,753,131	B1	Rogers et al.	6/22/2004	

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EL	D35	2004/0189994	A1	Sreenivasan et al.	9/30/2004	
EL	D36	6,819,426	B2	Sezginer et al.	11/16/2004	
EL	D37	2004/0223131	A1	Choi et al.	11/11/2004	
EL	D38	2002/0018190	A1	Nogawa et al.	2/14/2002	
EL	D39	6,019,166		Viswanath et al.	2/1/2000	
EL	D40	5,563,684		Stagaman	10/8/1996	
EL	D41	5,956,216		Chou	9/21/1999	
EL	D42	5,820,769		Chou	10/13/1998	
EL	D43	2005/0006343	A1	Choi et al.	1/13/2005	
EL	D44	2001/0023042	A1	Dirksen et al.	9/20/2001	
EL	D45	4,256,829		Daniel	3/17/1981	
EL	D46	2005/0100830	A1	Xu et al.	5/12/2005	
EL	D47	6,916,585	B2	Sreenivasan et al.	7/12/2005	
EL	D48	6,919,152	B2	Sreenivasan et al.	7/19/2005	
EL	D49	2005/0051742	A1	Shiraishi	3/10/2005	
EL	D50	6,153,886		Hagiwara et al.	11/28/2000	
EL	D51	5,853,446		Carre et al.	12/29/1998	

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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
APPLICATION NUMBER		10/666,527			
FILING DATE		09/18/2003			
FIRST NAMED INVENTOR		Bailey et al.			
Group Art Unit		1756			
Examiner Name		Unassigned			
Attorney Docket Number		PA51-22-02			
Sheet	4	of	11		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			

<i>EC</i>	D52	6,251,207	B1	Schultz et al.	6/26/2001	
<i>EC</i>	D53	5,331,371		Mori et al.	7/19/1994	
<i>EC</i>	D54	6,929,762	B2	Rubin	8/16/2005	
<i>EC</i>	D55	6,849,558	B2	Schaper	2/1/2005	

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Sheet 5 of 11				Attorney Docket Number	PA51-22-02

FOREIGN PATENT DOCUMENTS								
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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
EC	D56	WO	87/02935		Long et al.	5/21/1987		
EC	D57	JP	1-196749		Matsumoto et al.	8/8/1989		
EC	D58	JP	02192045		Mineo et al.	7/27/1990		
EC	D59	WO	01/90816		Heldari	11/29/2001		
EC	D60	WO	02/22916		Pettersson et al.	3/21/2002		
EC	D61	JP	55-88332		Okabe	7/4/1980		
EC	D62	EP	1460738	A2	Gimkiewicz et al.	9/22/2004		
EC	D63	JP	61-40845		Matsuo et al.	2/27/1986		
EC	D64	JP	2-248480		Yoneda et al.	10/4/1990		
EC	D65	JP	3-90345		Nobuyoshi et al.	4/16/1991		
EC	D66	JP	9-278490		Toru et al.	10/28/1997		

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EL	D67	ARAI ET AL., Development of a New Parallel Manipulator with Fixed Linear Actuator, in Proceedings of Japan/USA Symposium on Flexible Automation, Vol. 1, ASME, New York, pp. 145-149 1/1/1996	
EL	D68	WILLIAMS ET AL., Six Degree of Freedom Mag-Lev Stage Development, SPIE Vol. 3051, 856-867 1/1/1997	
EL	D69	RONG ET AL., Design and Analysis of Flexure-Hinge Mechanism Used in Micro-Positioning Stages, ASME Vol. 2, pp.979-985 1/1/1994	
EL	D70	FEYNMAN, There's Plenty of Room at the Bottom, 12/1/1959	
EL	D71	MANSKY ET AL., Large-Area Domain Alignment in Block Copolymer Thin Films Using Electric Fields, Macromolecules. Vol. 31. No. 13, pp.4399 - 4401 6/9/1998	
EL	D72	MARTIN ET AL., Predication of Fabrication Distortions in Step and Flash Imprint Lithography Templates, Journal of Vacuum Science Technology B 20(6), pp. 2891-2895 11/1/2002	
EL	D73	WHITE ET AL., Novel Alignment System for Imprint Lithography, J. Vac. Sci. Technol. B 18(6), pp. 3552 - 3556 11/1/2000	
EL	D74	UCHIDA ET AL., A Mask-to-Wafer Alignment and Gap Setting Method for X-ray Lithography Using Gratings, J. Vac. Sci. Technol. B 9 (6), pp. 3202 - 3206 11/1/1991	
EL	D75	Abstract of Japanese Patent 55-88332, 4/14/2004	

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-----------------------	--------------------------	---	----------------

EC	D76	Abstract of Japanese Patent 02-92603, 8/12/2004	
EC	D77	Abstract of Japanese Patent 02-24848, 1/26/1990	
EL	D78	SOWAH, Diamond used to Break the Mould, Retrieved 9/2/2003 from URL: <a href="http://www.electronicetimes.com/story/OEG20020918S0003">http://www.electronicetimes.com/story/OEG20020918S0003</a> 9/18/2002	
EC	D79	ARMITAGE ET AL., Analysis of Overlay Distortion Patterns, SPIE vol. 921 Integrated Circuit Metrology, Inspection, and Process Control II (1988) 1/1/1988	
EC	D80	CHEN ET AL., Adaptive Alignment of Photomasks for Overlay Placement, Journal of Vacuum Science. B 20(6), pp. 3099-3105 11/1/2002	
EC	D81	SCHNEIDER ET AL., The Wave-Printer: Towards Large-Area, Multilayer Microcontact-Printing, Proc. Of 4th euspen International Conference, Glasgos, Scotland (UK) 5/1/2004	
EL	D82	APPLICATION NO. 10/858,179, naming Inventors Choi et al., entitled Compliant Device for Nano-scale Manufacturing, filed 6/1/2004	
EL	D83	APPLICATION NO. 10/858,100, naming Inventors Choi et al., entitled Method and System to Control Movement of a Body for Nano-Scale Manufacturing, filed 6/1/2004	
EC	D84	APPLICATION NO. 10/827,118, naming Inventors Watts et al., entitled A Method of Forming a Deep-Featured Template Employed in Imprint Lithography, filed 4/19/2004	

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				FIRST NAMED INVENTOR	Bailey et al.
				Group Art Unit	1756
Sheet	8	of	11	Examiner Name	Unassigned
				Attorney Docket Number	PA51-22-02

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EC	D85	APPLICATION NO. 10/999,898, naming Inventors Cherala et al., entitled System for Magnification and Distortion Correction during Nano-Scale Manufacturing, filed 11/30/2004	
EC	D86	APPLICATION NO. 11/000,331, naming Inventors Nimmakayala et al., entitled Interferometric Analysis for the Manufacture of Nano-Scale Devices, filed 11/30/2004	
EC	D87	APPLICATION NO. 11/000,321, naming Inventors Nimmakayala et al., entitled Interferometric Analysis Method for the Manufacture of Nano-Scale Devices, filed 11/30/2004	
EC	D88	DENG ET AL., Simulation of Exposure and Alignment for Nano-imprint Lithography, Proc. SPIE, vol. 4688-93, p. 842-849 1/1/2002	
EC	D89	DENG ET AL., Rigorous Electromagnetic Simulation Applied to Alignment Systems, Proc. SPIE, vol. 4346-164, p. 1533-1540 1/1/2001	
EC	D90	APPLICATION NO. 11/143,076, naming Inventors Cherala et al., entitled System and Method for Improvement of Alignment and Overlay for Microlithography, filed 6/2/2005	
EC	D91	APPLICATION NO. 11/142,808, naming Inventors Cherala et al., entitled System for Varying Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
EC	D92	APPLICATION NO. 11/142,834, naming Inventors Cherala et al., entitled Method of Varying Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
EC	D93	APPLICATION NO. 11/142,838, naming Inventors Choi et al., entitled Compliant Device for Nano-Scale Manufacturing, filed 6/1/2005	

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EL	D94	APPLICATION NO. 11/142,839, naming Inventors Cherala et al., entitled Apparatus to Vary Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
EL	D95	APPLICATION NO. 11/142,825, naming Inventors Choi et al., entitled Method and System to Control Movement of a Body for Nano-Scale Manufacturing, filed 6/1/2005	
EL	D96	Abstract of Japanese Patent 61-040845, 2/27/1986	
EL	D97	Abstract of Japanese Patent 02-248480, 10/4/1990	
EL	D98	Abstract of Japanese Patent 3-090345, 4/16/1991	
EL	D99	Abstract of Japanese Patent 09-278490, 10/28/1997	
EL	D100	Abstract of Japanese Patent 61-040845, 2/27/1986	
EL	D101	Abstract of Japanese Patent 02-248480, 10/4/1990	
EL	D102	CHOI ET AL., Distortion and Overlay Performance of UV Step and Repeat Imprint Lithography, MNE Micro- and Nano-Engineering Conference 9/1/2004	

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EC	D103	GEHOSKI ET AL., Indium Tin Oxide Template Development for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2005	
EC	D104	DAUKSHER ET AL., Repair of Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 22(6), pp. 3306-3311 11/1/2004	
EC	D105	NORDQUIST ET AL., Image Placement Issues for ITO-based Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B, pp. 695-701 3/1/2004	
EC	D106	GEHOSKI ET AL., Evaluation of the Imprio 100 Step and Flash Imprint Lithography Tool, Proceedings of SPIE, vol. 5374, pp. 1006-1016 5/1/2004	
EC	D107	DAUKSHER ET AL., Step and Flash Imprint Lithography Template Characterization, from an Etch Perspective, J. Vac. Sci. Technol. B 21(6), pp. 2771-2776 11/1/2003	
EC	D108	RESNICK ET AL., Imprint Lithography: Lab Curiosity or the Real NGL?, SPIE Microlithography Conference 2/1/2003	
EC	D109	MANCINI ET AL., Analysis of Critical Dimension Uniformity for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2003	
EC	D110	MANCINI ET AL., Hydrogen Silsesquioxane for Direct Electron-Beam Patterning of Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 20(6), pp. 2896-2901 11/1/2002	
EC	D111	DAUKSHER ET AL., Characterization of and Imprint Results Using Indium Tin Oxide-Based Step and Flash Imprint Lithography Templates, J. Vac. Sci. Technol. B 20(6), pp. 2857-2861 11/1/2002	

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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				APPLICATION NUMBER	10/666,527
				FILING DATE	09/18/2003
				FIRST NAMED INVENTOR	Bailey et al.
				Group Art Unit	1756
				Examiner Name	Unassigned
Sheet	11	of	11	Attorney Docket Number	PA51-22-02

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cita No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

EL	D112	NORDQUIST ET AL., Critical Dimension and Image Placement Issues for Step and Flash Imprint Lithography Templates, 22nd Annual BACUS Symposium on Photomask Technology, Monterey, CA 9/1/2002	
EL	D113	BAILEY ET AL., Template Fabrication Schemes for Step and Flash Imprint Lithography, Microelectronic Engineering, 61-62, pp. 461-467 1/1/2002	
EL	D114	RESNICK ET AL., High Resolution Templates for Step and Flash Imprint Lithography, SPIE Microlithography Conference 2/1/2002	
EL	D115	RESNICK ET AL., New Methods for Fabricating Step and Flash Imprint Lithography Templates, NIST-SPIE Conference on Nanotechnology 9/1/2001	
EL	D116	CHOI ET AL., Layer-to-Layer Alignment for Step and Flash Imprint Lithography, SPIE's 26th Intl. Symp. Microlithography: Emerging Lithographic Technologies, Santa Clara, CA 3/1/2001	

Examiner Signature		Date Considered	2/6/06
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